

What is claimed is:

1. An image processing apparatus, comprising:
 - an exposing device for exposing an image forming material so as to form a latent image on the image forming material based on image data;
 - a thermal developing device for developing and visualizing the latent image on the exposed image forming material so as to form an image;
 - a measuring device for measuring the image density of the image on the developed image forming material;
 - a calibrating device for forming a table to define a relation between an image signal and image density on the basis of plural different test image data and measured-image densities thereof;
 - a counting device for counting the number of the image forming material developed within predetermined time; and
 - a controlling device for controlling the exposing device, the thermal developing device, the measuring device, the calibrating device and the counting device;
- wherein the controlling device stop forming the table for predetermined time when the counting device counts the

number of the developed image forming material more than predetermined number.

2. The image processing apparatus of claim 1, wherein said exposing device exposes to a part of the image forming material with a light quantity through the table corresponding to a predetermined density at the time of forming a diagnosis image and measuring a density on the part of the image forming material on which the diagnosis image is formed, wherein the image processing apparatus further comprises:

a controlling device for controlling at least one of the exposing device and the thermal developing device in such a way as to optimize the density of the diagnosis image according to the result density of the part of the image forming material obtained by measuring.

3. The image processing apparatus of claim 1, wherein the thermal developing device includes a heating drum that is heated by a heater so as to form the image.

4. The image processing apparatus of claim 3, wherein a surface of the heating dram has a area that is not heated from a back of the area.

5. An image processing apparatus, comprising:

an exposing device for exposing an image forming material so as to form a latent image on the image forming material based on image data;

a thermal developing device for developing and visualizing the latent image on the exposed image forming material, wherein the developing device includes a heating dram which is heated by a heater so as to form an image;

a measuring device for measuring the image density of the image on the developed image forming material;

a calibrating device for forming a table to define a relation between an image signal and image density on the basis of plural different test image data and measured-image densities thereof;

a thermal sensing device for sensing temperature of surface on the heating dram;

a controlling device for controlling the exposing device, the thermal developing device, the measuring device, the calibrating device and the thermal sensing device;

wherein the controlling device stop forming the table when the thermal sensing device senses the temperature out of predetermined range of temperature.

6. The image processing apparatus of claim 5, wherein said exposing device exposes to a part of the image forming material with a light quantity through the table corresponding to a predetermined density at the time of forming a diagnosis image and measuring a density on the part of the image forming material on which the diagnosis image is formed, wherein the image processing apparatus further comprises:

a controlling device for controlling at least one of the exposing device and the thermal developing device in such a way as to optimize the density of the diagnosis image according to the result density of the part of the image forming material obtained by measuring.

7. The image processing apparatus of claim 5, wherein the thermal sensing device is provided on an inner circumference surface of the heating drum.

8. The image processing apparatus of claim 5, wherein the thermal sensing device is provided on an outer circumference surface of the heating drum.

9. The image processing apparatus of claim 5, wherein a surface of the heating drum has a area that is not heated from a back of the area.

10. A method of an image processing, comprising the steps of:

exposing for exposing an image forming material so as to form a latent image on the image forming material based on image data;

thermal developing for developing and visualizing the latent image on the exposed image forming material so as to form an image by a developing device;

measuring for measuring the image density of the image on the developed image forming material;

calibrating for forming a table to define a relation between an image signal and image density on the basis of plural different test image data and measured-image densities thereof;

counting for counting the number of the image forming material developed within predetermined time; and

controlling to form the table so as to stop for predetermined time when the counting step counts the number of the developed image forming material more than predetermined number.

11. The method of claim 10, wherein said exposing step exposes to a part of the image forming material with a light quantity through the table corresponding to a predetermined density at the time of forming a diagnosis image and measuring a density on the part of the image forming material on which the diagnosis image is formed, wherein the method further comprises the step of:

controlling for controlling at least one of the exposing and the thermal developing in such a way as to optimize the density of the diagnosis image according to the result density of the part of the image forming material obtained by measuring.

12. The method of claim 10, wherein the thermal developing device includes a heating drum that is heated by a heater so as to form the image.

13. The method of claim 10, wherein a surface of the heating dram has a area that is not heated from a back of the area.

14. A method of an image processing, comprising the steps of:

exposing for exposing an image forming material so as to form a latent image on the image forming material based on image data;

thermal developing for developing and visualizing the latent image on the exposed image forming material by a thermal developing device, wherein the thermal developing device includes a heating dram which is heated by a heater so as to form an image;

measuring for measuring the image density of the image on the developed image forming material;

calibrating for forming a table to define a relation between an image signal and image density on the basis of plural different test image data and measured-image densities thereof;

thermal sensing for sensing temperature of surface on the heating dram by a thermal sensing device;

controlling to form the table so as to stop when the thermal sensing step senses the temperature out of predetermined range of temperature.

15. The method of claim 14, wherein said exposing step exposes to a part of the image forming material with a light quantity through the table corresponding to a predetermined density at the time of forming a diagnosis image and measuring a density on the part of the image forming material on which the diagnosis image is formed, wherein the method further comprises the step of:

a controlling for controlling at least one of the exposing and the thermal developing in such a way as to optimize the density of the diagnosis image according to the result density of the part of the image forming material obtained by measuring.

16. The method of claim 14, wherein the thermal sensing device is provided on an inner circumference surface of the heating drum.

17. The method of claim 14, wherein the thermal sensing device is provided on an outer circumference surface of the heating dram.

18. The method of claim 14, wherein a surface of the heating dram has a area that is not heated from a back of the area.

19. A computer program to control a computer to function as an image processor, wherein the image processor comprises:

an exposing function for exposing an image forming material so as to form a latent image on the image forming material based on image data;

a thermal developing function for developing and visualizing the latent image on the exposed image forming material so as to form an image by a developing device;

a measuring function for measuring the image density of the image on the developed image forming material;

a calibrating function for forming a table to define a relation between an image signal and image density on the basis of plural different test image data and measured-image densities thereof;

a counting function for counting the number of the image forming material developed within predetermined time; and

a controlling function to form the table so as to stop for predetermined time when the counting function counts the number of the developed image forming material more than predetermined number.

20. The computer program of claim 19, wherein said exposing function exposes to a part of the image forming material with a light quantity through the table corresponding to a predetermined density at the time of forming a diagnosis image and measuring a density on the part of the image forming material on which the diagnosis image is formed, wherein the computer program further comprises:

a controlling function for controlling at least one of the exposing and the thermal developing in such a way as to optimize the density of the diagnosis image according to the result density of the part of the image forming material obtained by measuring.

21. The computer program of claim 19, wherein the thermal developing device includes a heating drum that is heated by a heater so as to form the image.

22. The computer program of claim 19, wherein a surface of the heating drum has a area that is not heated from a back of the area.

23. A computer program to control a computer to function as an image processor, wherein the image processor comprises:

an exposing function for exposing an image forming material so as to form a latent image on the image forming material based on image data;

a thermal developing function for developing and visualizing the latent image on the exposed image forming material by a thermal developing device, wherein the thermal developing device includes a heating drum which is heated by a heater so as to form an image;

a measuring function for measuring the image density of the image on the developed image forming material;

a calibrating function for forming a table to define a relation between an image signal and image density on the

basis of plural different test image data and measured-image densities thereof;

a thermal sensing function for sensing temperature of surface on the heating drum by a thermal sensing device;

a controlling function to form the table so as to stop when the thermal sensing step senses the temperature out of predetermined range of temperature.

24. The computer program of claim 23, wherein said exposing function exposes to a part of the image forming material with a light quantity through the table corresponding to a predetermined density at the time of forming a diagnosis image and measuring a density on the part of the image forming material on which the diagnosis image is formed, wherein the computer program further comprises:

a controlling function for controlling at least one of the exposing and the thermal developing in such a way as to optimize the density of the diagnosis image according to the result density of the part of the image forming material obtained by measuring.

25. The computer program of claim 23, wherein the thermal sensing device is provided on an inner circumference surface of the heating dram.

26. The computer program of claim 23, wherein the thermal sensing device is provided on an outer circumference surface of the heating dram.

27. The computer program of claim 23, wherein a surface of the heating dram has a area that is not heated from a back of the area.